

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of communicating video from a sender to a receiver over a network comprising ~~the steps of~~:
 - receiving a frame;
 - determining if the ~~received~~ frame is from a first sub-sequence of frames;
 - when the frame is from the a first sub-sequence of frames, encoding the frame, packetizing the frame into at least a packet, and sending the packet via a first path in the network; and
 - otherwise, when the frame is from a second sub-sequence of frames and not from the a first sub-sequence of frames, encoding the frame, packetizing the frame into at least a packet, and sending the packet via a second path in the network that includes a relay device not on the first path.
2. (Currently Amended) The method of claim 1 wherein the first sub-sequence and the second sub-sequence are selected based on time or space.
3. (Currently Amended) The method of claim 1 wherein the step of determining if the ~~received~~ frame is from a first sub-sequence of frames includes determining if the frame is an odd frame or an even frame.
4. (Currently Amended) The method of claim 1 wherein the packet includes a label for identifying whether the packet is part of the first sub-sequence or part of the second sub-sequence.

5. (Currently Amended) The method of claim 1 further comprising ~~the steps of~~:

- determining if a packet is from the a first sub-sequence;
- when the packet is from the a first sub-sequence, decoding the packet;
- determining if there is an error in the packet;
- when there is an error, determining if a reduced ~~reduce~~ frame rate is acceptable;
- when the reduced a ~~reduce~~ frame rate is acceptable, displaying the video at the a reduced frame rate by employing frames from the second sub-sequence;
- when the a reduced frame rate is not acceptable, performing state recovery on the ~~first~~ frame by employing one of a previous frame and a future frame from one of the first sub-sequence and the second sub-sequence.

6. (Currently Amended) The method of claim 1 further comprising ~~the steps of~~:

- determining if the a packet is from the a first sub-sequence;
- when the packet is from the a first sub-sequence, decoding the packet;
- determining if there is an error in the packet;
- when there is an error, performing state recovery on the ~~first~~ frame by employing one of a previous frame and a future frame from one of the first sub-sequence and the second sub-sequence.

7. (Currently Amended) The method of claim 6 wherein the step of performing state recovery on the first frame by employing one of a previous frame and a future frame from one of the first sub-sequence and the second sub-sequence includes:

estimating a lost frame;

employing an estimate of the lost ~~estimate~~ frame in future decoding;

and

displaying the estimate of the lost ~~estimated~~ frame.

8. (Currently Amended) A system of communicating video from a sender to a receiver over a network comprising:

a separator for receiving a first frame with a sub-sequence identifier field and specifying the sub-sequence identifier field of the first frame with one of a first sub-sequence identifier and of a second sub-sequence identifier based on a predetermined criteria;

an encoder coupled to the separator for encoding the first frame; and

a transmitter for transmitting the first frame via one of a first path and a second path based on the sub-sequence identifier field, wherein the first path comprises a relay device and the second path does not include the relay device of the first path.

9. (Original) The system of claim 8 further comprising:

a receiver for receiving the first frame;

a decoder coupled to the receiver for decoding the first frame and determining if there is an error in the first frame; and

a state recovery unit coupled to the decoder for performing state recovery on the first frame by employing one of a previous frame and a future frame when there is an error.

10. (Original) The system of claim 8 further comprising:
a sender for estimating the quality of the state recovery by employing multiple states and comparing a recovered corrupted stream with a known correctly received stream.

11. (Currently Amended) The method of claim 1 further comprising ~~the steps of~~:
receiving at least one path quality parameter; and
in response to the path quality parameter dynamically modifying at least one video encoding parameter.

12. (Currently Amended) The method of claim 11 ~~[[1]]~~ wherein the path quality parameter is provided through a feedback link with the receiver.

13. (Currently Amended) The method of claim 11 ~~[[1]]~~ wherein the video encoding parameter includes quantization, frame rate, and spatial resolution of the encoding.

14. (Currently Amended) The method of claim 11 ~~[[1]]~~ further comprising ~~the steps of~~:
receiving the at least one path quality parameter; and
in response to the path quality parameter dynamically modifying at least one communication parameter.

15. (Currently Amended) The method of claim 14 ~~[[1]]~~ wherein the communication parameter includes number of paths and path configuration.

16. (Currently Amended) The method of claim 14 ~~[[1]]~~ wherein the path quality parameter includes bandwidth, packet loss rate, delay, and quality of service.

17. (Currently Amended) The method of claim 15 ~~[[1]]~~ wherein the number of paths is dynamically modified to be one path ~~and the number of states is dynamically modified to be one state.~~

18. (Currently Amended) A method for communicating an original series of video frames over a network comprising;
receiving the original series of video frames;
separating the original series of video frames into odd video frames and even video frames;
encoding the odd video frames to encoded odd video frames;
encoding the even video frames to encoded even video frames;
wherein the encoded odd video frames and the encoded even video frames are independently decodable;
transmitting the encoded odd video frames by employing a first path over the network; and
transmitting the encoded even video frames by employing a second path over the network, the second path comprising a relay device that is not on the first path.

19. (Original) The method of claim 18 further comprising:
receiving the encoded odd video frames;
receiving the encoded even video frames;
decoding the encoded odd video frames to generate re-constructed odd video frames;
decoding the encoded even video frames to generate re-constructed

even video frames; and

merging the re-constructed odd video frames and re-constructed even video frames to recover the original video frames.

20. (Original) The method of claim 18 further comprising:

receiving the encoded odd video frames;

receiving the encoded even video frames;

merging the encoded odd video frames and encoded even video frames to generate a composite series of encoded frames; and

decoding the series of composite encoded video frames to recover the original video frames.